

AMENDMENTS TO THE CLAIMS

All pending claims are reproduced below, including those that remain unchanged and those that were previously amended. Claims 39-42, 58-60, 64-66, 68-78, 80 and 82-89 are presently cancelled without prejudice or disclaimer of the inventions therein. Claim 29-37, 43-57, 61-63 are being amended, and claims 90-93 are being added.

Claims 1-28 (Cancelled)

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29. (Currently Amended) ~~An electro-kinetic transporter-~~ An air conditioner device, comprising:
a housing;
a first electrode, disposed in said housing;
a second electrode, removably disposed in said housing, having a base member; and
means, attached to said base member, for frictionally cleaning said first electrode whenever said
base member of said second electrode is moved within said housing.

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30. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim 29, wherein
said means for frictionally cleaning includes a strip of flexible electrically insulating material having a first end
attached to said base member, and having a second end that defines a slit;
said strip extending from said base toward and beyond said first electrode such that said first
electrode fits frictionally within said slit when said second electrode is disposed in said housing.

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~~31.~~ (Currently Amended) The air electro-kinetic transport conditioner device of claim ²~~30~~, wherein said strip has at least one characteristic selected from a group consisting of (a) said strip includes a polyester film, (b) said strip includes a polyamide film, (c) said strip has a strip thickness of about 0.1 mm, (d) slit has a slit length of at least 0.25", and (e) said slit has a slit width less than a thickness of said first electrode.

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~~32.~~ (Currently Amended) The air electro-kinetic transport conditioner device of claim ²~~30~~, wherein an inside bottom surface of said housing includes an upwardly projecting vane disposed to deflect said second end of said strip upwardly and away from said first electrode when said second electrode is fully disposed in said housing.

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~~33.~~ (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ¹~~29~~, wherein said means for frictionally cleaning includes:

an arm, made of electrically insulating material, having a first distal end and a second end that is biasedly pivotably attached to said base; and

a strip of flexible electrically insulating material having a first end attached to first distal end of said arm, and having a second end that defines a slit;

said arm and said strip extending from said base toward and beyond said first electrode such that said first electrode fits frictionally within said slit when said second electrode is disposed in said housing.

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34. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ~~33~~ 5, wherein said arm is pivotably biased towards an angle of about 90% relative to a longitudinal axis of said second electrode.

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35. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ~~33~~ 5, wherein an inside bottom portion of said housing includes an upwardly projecting vane disposed to deflect said first distal end of said arm upwardly and away from said first electrode when said second electrode is fully disposed in said housing.

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36. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ~~35~~ 7, wherein:
said base of said second electrode includes a downwardly projecting member;
said inside bottom portion of said housing defines an opening sized to receive said projecting member of said base when said second electrode is fully inserted into said housing;
wherein said arm and said strip attached thereto are pivoted upward and parallel to a longitudinal axis of said second electrode.

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37. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ~~32~~ 4, further including a barrier wall mounted on said inside bottommost portion of said second electrode.

Claim 38-42 (Cancelled)

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43.

(Currently Amended) ~~An electro-kinetic transporter-~~ An air conditioner device, comprising:

a portable housing;

a first electrode, disposed in said housing;

a second electrode, removably disposed in said housing, ~~having a base member~~;

a source of high voltage, disposed in said housing, coupled between said first electrode and said second electrode; and

~~at least one~~ a bead-shaped member defining a through opening;

wherein said first electrode passes through said through opening and an outer surface of said first electrode ~~may be~~ is at least partially frictionally cleaned by movement of said bead-shaped member along a length of said first electrode when said portable housing is rotated.

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44.

(Currently Amended) The air electro-kinetic transporter- conditioner device of claim ~~43~~, wherein

said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said bead-shaped member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said bead-shaped member, (c) said through opening is formed offset from at inclined relative to a longitudinal axis of said bead-shaped member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

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45.

(Currently Amended) The air electro-kinetic transporter- conditioner device of claim ~~43~~, wherein

a diameter of said through opening exceeds a diameter of said first electrode by at least 0.5 mm.

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46. (Currently Amended) The ~~air electro-kinetic transporter~~ device of claim 43, wherein:
 a bottom end of said first electrode is retained in a pylon; and
 said bead-shaped member is bell-shaped such that when in a bottommost position along said first electrode, an air gap exists between an outer surface of said first electrode and an inner surface of said bead-shaped member.

47. (Currently Amended) ~~An electro-kinetic transporter~~ An air conditioner device, comprising:
 a housing;
 a first electrode, disposed in said housing such that said first electrode is stationary within said housing;
 a second electrode, removably disposed in said housing such that said second electrode can be manually removed from said housing and then returned to a resting position in said housing;
 a high voltage generator disposed in said housing, to provide a potential difference between coupled with said first electrode and said second electrode when said second electrode is in the resting position in said housing; and
 wherein ~~the~~ said stationary first electrode is frictionally cleaned whenever said second electrode is manually removed from ~~moved within~~ said housing.

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48. (Currently Amended) ~~An electro-kinetic transporter~~ An air conditioner device, comprising:
 a portable housing;
 a first electrode, disposed in said housing;

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a second electrode removably disposed in said housing;
a source of high voltage coupled with said first electrode and said second electrode;
at least one bead-shaped member defining a through opening; and
wherein movement of said bead-shaped member along said first electrode frictionally cleans the
an outer surface of said first electrode when said portable housing is rotated.

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49. (Currently Amended) ~~An electro-kinetic transporter-~~ An air conditioner device, comprising:
a portable housing;
a first electrode, disposed in said housing;
a second electrode removably disposed in said housing;
a source of high voltage, disposed in said housing, coupled with said first electrode and said second
electrode;
a free-floating ~~an~~ electrode cleaning mechanism engaging said first electrode;
wherein rotation of said portable housing causes movement of said free-floating electrode cleaning
mechanism to frictionally ~~cleans~~ clean said first electrode.

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50. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim 29, wherein
an inside bottom portion of said housing includes an upwardly projecting vane disposed to deflect said
cleaning means upwardly and away from said first electrode when said second electrode is fully disposed
in said housing.

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51.

(Currently Amended) ~~An electro-kinetic transporter~~ An air conditioner device, comprising:
a freestanding portable housing;
a first electrode, disposed in said housing;
a second electrode, removably disposed in said housing, ~~having a base member~~ such that said second electrode can be manually removed from said housing and then returned to a resting position in said housing;

EL a source of high voltage, disposed in said housing, ~~coupled between~~ to provide a potential difference between said first electrode and said second electrode when said second electrode is in the resting position in said housing; and

at least one free-floating slidable member having a through opening;

wherein said first electrode passes through said through opening such that rotation of said housing causes ~~and an outer surface of said first electrode may be at least partially frictionally cleaned by movement of said~~ free-floating slidable member along a length of said first electrode to at least partially frictionally clean an outer surface of said first electrode.

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~~52.~~ (Currently Amended) The air electro-kinetic transporter-conditioner device of claim ~~51~~, wherein said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said slidable member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said slidable member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

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53. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim 51, wherein
a diameter of said through opening exceeds a diameter of said first electrode by at least 0.5 mm.

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54. (Currently Amended) The air electro-kinetic transporter-conditioner device of claim 51, wherein:
a bottom end of said first electrode is retained in a pylon; and
said slidable member is bell-shaped such that when in a bottommost position along said first
electrode, an air gap exists between an outer surface of said first electrode and an inner surface of said
slidable member.

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55. (Currently Amended) ~~An electro-kinetic transporter-~~ An air conditioner device, comprising:
a housing;
a first electrode, disposed in said housing;
a second electrode removably disposed in said housing such that said second electrode can be
manually removed from said housing and then returned to a resting position in said housing;
a source of high voltage coupled with said first electrode and said second electrode;
at least one free-floating slidable member having a through opening; and
wherein rotation of said housing causes movement of said slidable member along said first electrode
to frictionally cleans clean the an outer surface of said first electrode.

56. (Currently Amended) ~~An electro-kinetic transporter-~~ An air conditioner device, comprising:
a housing;

a first electrode, disposed in said housing;
a second electrode, removably disposed in said housing; and
means, attached to said second electrode, for frictionally cleaning said first electrode whenever said
second electrode is manually removed from ~~moved within~~ said housing.

57. (Currently Amended) The ~~air electro-kinetic transporter~~ device of claim 56, wherein
said means for frictionally cleaning includes a strip of flexible electrically insulating material having a first end
associated with said second electrode, and having a second end that defines a slit;
said strip extending toward and beyond said first electrode such that said first electrode fits
frictionally within said slit when said second electrode is disposed in said housing.

Claims 58-60 (Cancelled)

61. (Currently Amended) ~~An electro-kinetic transporter~~ An air conditioner device, comprising:
a portable housing;
a first electrode, disposed in said housing;
a second electrode, removably disposed in said housing;
a source of voltage, disposed in said housing, coupled between said first electrode and said second
electrode; and
at least one bead-shaped member defining a through opening;

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wherein said first electrode passes through said through opening and an outer surface of said first electrode can be at least partially frictionally cleaned by movement of said bead-shaped member along a length of said first electrode when said portable housing is rotated.

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62. (Currently Amended) The ~~air electro-kinetic transporter~~ device of claim 61, wherein said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said bead-shaped member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said bead-shaped member, (c) said through opening is formed offset from at inclined relative to a longitudinal axis of said bead-shaped member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

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63. (Currently Amended) ~~An electro-kinetic transporter~~ An air conditioner device, comprising:
a housing;
a first electrode, disposed in said housing;
a second electrode, disposed in said housing;
a source of voltage, disposed in said housing, coupled to provide a potential difference between said first electrode and said second electrode; and
at least one free-floating slidable member having a through opening;
wherein said first electrode passes through said through opening such that rotation of said housing causes ~~and an outer surface of said first electrode can be at least partially frictionally cleaned by movement~~

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of said free-floating slidable member along a length of said first electrode to at least partially frictionally
clean an outer surface of said first electrode.

Claims 64-89 (Cancelled)

90. (New) An air conditioner device, comprising:

a housing;

a pillar within said housing;

a first electrode, disposed in said housing, with a bottom end of said first electrode retained by said pillar;

a second electrode, removably disposed in said housing;

a high voltage source coupled between said first electrode and said second electrode; and

a member defining a through opening, through which said first electrode passes, such that an outer surface of said first electrode may be at least partially frictionally cleaned by movement of said member along a length of said first electrode; and

wherein when said member is in a bottommost position along said first electrode, at least a portion of said member surrounds and rests on at least a portion of said pillar, causing an air gap to exist between an outer surface of said first electrode and an inner surface of said member.

91. (New) An ion producing device, comprising:

a freestanding portable housing adapted to rest in an upright position on a surface;

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an emitter electrode disposed in said housing;

a collector electrode removably disposed in said housing such that said collector electrode can be manually removed from said housing for cleaning and then returned to a resting position in said housing, said collector electrode being substantially parallel to said emitter electrode when said collector electrode is in the resting position in said housing;

E1 a high voltage generator, disposed in said housing, to provide a potential difference between said emitter electrode and said collector electrode when said collector electrode is in the resting position in said housing; and

at least one free-floating member to slide along and remove debris from said emitter electrode when said freestanding housing is substantially inverted.

92. (New) The device of claim 91, wherein said at least one free-floating member can slide along and remove debris from said emitter electrode when said freestanding housing is substantially inverted and said collector electrode is in the resting position within said housing.

93. (New) The device of claim 91, wherein said at least one free-floating member can slide along and remove debris from said emitter electrode when said freestanding housing is substantially inverted and said collector electrode has been removed from said housing.